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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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08/772,259

12/23/1996

KAYOKO MASAKI

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21171

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10/21/2003

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EXAMINER

NGUYEN, THONG Q

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 10/21/2003

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 43

Application Number: 08/772,259
Filing Date: December 23, 1996
Appellant(s): MASAKI ET AL.

Stephen T. Boughner
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on July 24, 2003.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

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(2) *Related Appeals and Interferences*

A statement states that there is not any related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The rejection of claims 4-7 and 9-11 stand or fall together because appellant's brief does include a statement that this grouping of claims does stand or fall together. See 37 CFR 1.192(c)(7).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

5,600,455

ISHIKAWA et al

2-1997

The prior art as described at pages 1-5 and shown in figures 11-12 of the present application.

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(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 4-7 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art described at pages 1-5 and illustrated in figures 11-12 in view of Ishikawa et al (Patent No. 5,600,455, of record).

The optical device as provided by the prior art which is described in the present specification at pages 1-5 and illustrated in figs. 11-12 comprises 1) a light source apparatus having a lamp (7) and a reflector (8); 2) a light guide plate (2) having a light entrance surface (T) for receiving light from the light source apparatus, an inclined bottom surface decreasing away from the light entrance surface, and an exit surface opposite and spaced from the inclined bottom surface; 3) a reflecting plate (4) disposed adjacent to the inclined bottom surface of the light guide plate (2); and 4) a light control plate (5) having an emitting surface and an entrance surface having a prismatic configuration which entrance surface faces the exit surface of the light guide plate (2). It is also noted that the light control plate (5) comprises the following features: First, the prismatic configuration comprises a plurality of triangular-shaped projections which are extended in one common direction and repeatedly arranged in a direction perpendicular to the mentioned common direction; and second, the emitting surface of the light control plate is spaced from the entrance surface of the light control plate as can be seen in figures 11-12.

As a result of such a structure, the optical device of the prior art meets almost the structure of the device as claimed in the present application. However, the optical

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device of the prior art does not disclose that only part of the slopes of each prism of the prismatic configuration of the light control plate defines a diffusing surface for the purpose of generating diffused light in a substantially uniform manner and simultaneously reducing the effects of the reflecting plate.

The use of a light control plate having a prismatic configuration wherein only part of the slopes of each prism constituting the prismatic configuration is made as a roughed surface which defines a diffusing surface is disclosed in the art as can be seen in the light control device disclosed by Ishikawa et al. In particular, Ishikawa et al disclose a light control plate and teach the use of a light diffusing profile on a prismatic surface. The roughened pattern formed on one slope of each triangular-shaped projection as provided by Ishikawa et al will diffuse the light passing through the projection. See column 3 and figure 7. It is also noted that the formation of only one part of the slopes of each prism as suggested by Ishikawa et al is for the purpose of providing a uniform pattern of light in comparison with the use of prismatic configuration of the prior art. See columns 1-2 and figures 1-5 in which Ishikawa et al disclose that since the slope(s) of each prism of the prismatic configuration is/are not sloped; therefore, the optical device of the prior art does not provide a uniform pattern when the view of an observer is angled with respect to the optical device. The formation of coarse surface on at least one part of the slope of each prism as suggested by Ishikawa et al will overcome the disadvantages of the prior art while providing a uniform pattern of illumination. See Ishikawa et al, column 3.

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Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the optical device having a means in the form of a prismatic configuration formed on the entrance surface of a light control plate as provided by the prior art by making only part or one side of each prism of the prismatic configuration as a roughed surface as suggested by Ishikawa et al for the purpose of controlling diffusing light with substantially uniform manner. It is also noted that while Ishikawa et al do not clearly state that the formation of roughed surfaces in the prismatic configuration of the light control plate will reduce the effects of the reflecting member; however, such use of roughed surface on only one slope of each prism of the prismatic configuration as suggested by Ishikawa et al will make the conventional device described in pages 1-5 and shown in figures 11-12 have a structure which is very similar to that of the device as claimed; therefore, it is expected that the combined product will yield the same result, i.e., reduction the effects of the light reflecting plate used in the device.

(11) Response to Argument

Applicant's arguments provided in Paper Nos. 34 and 35 filed on 4/16/2002 and 5/17/2002, respectfully, have been fully considered but are not persuasive. In regard to applicant's arguments as provided in the two mentioned papers, the Examiner offers the following opinions.

First, in response to applicant's arguments against the references individually, i.e., applicant's arguments concerning the art of Ishikawa et al, one cannot show nonobviousness by attacking references individually where the rejections are based on

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combinations of references. The test for obviousness is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Second, the art of Ishikawa et al is directed to a surface light source device having a light control member with a prismatic configuration formed on one surface thereof. The light control member with a prismatic configuration formed on one surface of each prism as taught by Ishikawa et al disclose the advantage, i.e., the reduction of the stripe pattern, of use a light control member in a liquid crystal display to the use if a light control member without the prism configuration as those disclosed in the prior art. While applicant made numerous arguments/viewpoints about the light control member provided by Ishikawa et al, applicant has refused/neglected to recognize the important feature disclosed by Ishikawa et al. In particular, the important thing disclosed/suggested to one skilled in the art made by Ishikawa et al is that they teach that one of the two slopes constituting each of the prism/projection is roughed/roughed for the purpose of providing a more uniform in light distribution after light passing such a prism.

Third, the art of Ishikawa et al is used in combination with the surface light source device of the prior art described in pages 1-5 and shown in figures 11-12 of the present application, and the combined product provided by the prior art and Ishikawa et al will provide a result of reduction in the effect of the reflector in the surface light source device.

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Fourth, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the obviousness is established by the knowledge generally available to one of ordinary skill in the art for the following reasons.

- a) The arrangement of all optical elements used to constitute the light source device of the prior art, see pages 1-5 and figures 11-12 of the present application, is identical to that of the device claimed except the use of the roughed configuration on one slope of each prism of the prismatic pattern. In other words, the use of a light control member with the prismatic surface facing the light guide of the prior art is similar to that of the device claimed.
- b) The formation of roughed configuration on one slope of each prism of a prismatic pattern formed on one surface of a light control member in a surface light source device is clearly suggested to one skilled in the art by Ishikawa et al will improve the uniform manner of light distribution.
- c) The art of Ishikawa et al and the art of the prior art are in the same field of endeavor.

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Thus, it would have been obvious to one skilled in the art to utilize the teaching provided by Ishikawa et al to modify the surface light source device of the prior art for the purpose of providing a more uniform in light distribution


For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

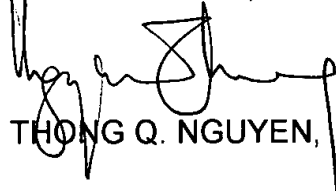
Thong Q. Nguyen
Primary Examiner
Art Unit 2872

October 15, 2003

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